S
CONTROL - Wasatch
Insect

Salt Lake City, Utah
February 15, 1943

ANNUAL INSECT CONTROL REPORT - 1942

In view of existing detailed reports for 1940 and 1941, little is to be gained in a review of the history of the Wasatch infestation. The following table from our survey report last fall summarizes and condenses the history of the infestation since it was first recognized:

Insect Brood Year	Estimated New Attacks	Number trees Treated
1938 - 1939	°18,050	0
1939 - 1940	24,400	9,004 ✓
1940 - 1941	45,666	17,645 ✓
1941 - 1942	40,717	23,184 13,785
1942 - 1943	12,549	
Total	141,382	~~49,833~~ 40,434

°1939 Red Top Estimate

The Regional policy of thorough cleanup unit by unit has been followed generally and it has resulted in a reduction of the total estimate of 45,666 trees in 1940 to 12,549 in 1942.

Spring - 1942

Wyoming Unit

This unit was located just below the forest boundary on the East Fork of Blacksfork River. An attempt to establish a camp on May 4 failed due to the snow depth four miles from the camp site at the mouth of the Little East Fork. On May 11 another start was made and through the use of a team and a high wheeled wagon and a crew of shovel men the camp site was reached on the second day. By May 15 the road was open enough to permit travel with a pickup using chains.

N. D. Wygant, Entomologist, Bureau of Entomology, and Clark Miles of the Regional Office assisted in training a completely green spotting crew and in extending our East Fork unit base line to include this unit. After spotting the area, the crew treated 346 trees by the deck and burn method.

Trees were medium sized and were generally not heavily attacked. Single trees and 2-3 tree groups prevailed. The mature stand is scattered, broken up by reproduction and aspen thickets.

Rising water repeatedly washed out the foot bridges constructed to reach the treating area. This constituted the main difficulty overcome on this job. There was a scarcity of timber long enough to span the East Fork at flood stage.

Upon completion of the treating on May 18, the crew was moved to the Iron Mine unit and formed the nucleus of Camp 2 at the end of the utilization road.

Iron Mine Unit

On May 20 a tractor with bulldozer was started out to open the Soapstone Utilization road. It was a week later before the road was open to the trail over the ridge to Iron Mine. However, it was June 6 before a crew of shovel men had opened the 2½ miles of trail through four or five feet of packed snow wide enough to permit passage of pack stock to the Iron Mine camp site. The camp was immediately established.

Snow conditions prevented setting up a camp at the end of the utilization road in the upper end of the unit until June 19. At about this time burning conditions on the lower end of the unit near Iron Mine Creek became extremely risky and on June 23 wind conditions caused a spot fire from a burning deck to spread over about ten acres and set numerous small spot fires. Crews were in the process of switching to the ortho method at that time and complete change to that method was made.

It was nearly the end of June before the personnel could be built up to more than 90 men and it was July 29 before all areas were completely treated.

Almost 3/4 of the 4,040 trees treated during the spring were treated with ortho, using a 5 to 1 mixture of oil and ortho. We are very enthusiastic over the use of this method. In the past we have been somewhat skeptical of its use in view of the difficulty in checking the work while it is being done and the necessity of having dependable, well trained treaters. The fall survey, however, disclosed that little more cleanup was needed on ortho treated areas than on those treated by the deck and burn method. Most of the cleanup required is believed to be due to trees missed in spotting.

Including the fall 1941 work on the unit 13,439 trees were treated and 93.6 percent reduction in the infestation was obtained.

Timber on the Iron Mine unit is large, especially at the north end (one tree on this area has a measured diameter of 44 inches at breast height). The infestation was not nearly as aggressive this year though large groups of trees were attacked. Pitched out and strip attacks were frequent. Attacks often did not extend over half of the tree length. The brood development was very late and there was no evidence of emergence in the latter part of July.

Dr. Wygant visited the project in July and directed the experimental treatment of trees with various strength solutions of ortho and oil. He concluded, upon checking the experiment later in the summer, that a 6 to 1 solution was satisfactory. See Wygant's report dated September 9, 1942. Dr. Wygant and Mr. Miles also checked on the experimental winter ortho treatment of trees

conducted under adverse weather conditions in the fall of 1941 using a 4 to 1 ortho solution. The results of this experiment are recorded in Dr. Wygant's report of September 6, 1942. Ortho use in fall work was found to be quite successful and was recommended subject to some limitations.

After checking these experiments the trees which had not been successfully treated and the checked trees were sprayed with ortho to prevent any emergence.

Experienced labor was very difficult to obtain on this project. Twenty-five percent of the men employed were under 18 years of age. Ranger Benjamin Swapp served as camp foreman at the 60-man pack camp. Reval Davies acted in that capacity at the 30-man camp. His previous experience had consisted of strawboss duties only. Available men experienced at camp supply and time keeping duties were lost to the armed forces at the start of the project, leaving this work to be done largely by the supervisory personnel. Efforts to replace these men with capable school teachers or others were not successful. This caused a considerably greater burden to overhead than was desirable and the strain of long hours could not help but lower somewhat the personal efficiency of those concerned.

Fall - 1942

Fish Creek Unit

As soon as recommendations based on the fall survey were approved, camp and treating equipment was moved from Soapstone to Upper Stillwater. A 30-man camp was packed in 6½ miles to the middle of the Fish Creek unit on station 5 East. Spotting was started as soon as enough men to complete a crew were obtained. One man who had previous experience as a spotter was trained as chief spotter; all others were inexperienced at spotting.

Our memoranda of November 5, 1942, and January 9, 1943, to the Regional Forester have outlined in some detail our efforts to fill up the camp to at least 30 men. (Our letter of November 5 expressed doubt that the Provo office of the U. S. Employment Service would be successful in obtaining 20 men which they felt they could surely provide us. While they made strenuous and continued efforts in our behalf, not one man turned up from their office.) Suffice it to say that our continuous efforts were fruitless and a total of 18 men for a 2½-day period was the maximum employment that was achieved. Throughout the entire period we had a camp foreman, cook, packer, truck driver-tractor operator and a strawboss, none of whom could be released to cut overhead costs, yet almost constituted enough overhead to care for an entire 30-man camp. After November 10 it became necessary to use the tractor-bulldozer after each storm to keep the last few miles of road open.

By November 12 the area from station 4 East to station 8 West, south of the base line had been spotted. It became apparent then that it was improbable that a treating crew would be completed so the spotters were switched to treating. Heavy snows started about this time and they tended to increase the labor turn-over.

The steep slopes in deep snow made the work difficult and all but two laborers failed to return after Thanksgiving, so the project was terminated. Only 236

trees were decked and burned, leaving 784 spotted trees to be treated. There were 36 inches of snow at the camp during the time it was being packed out and there was deeper snow on the higher treating area.

Trees on the unit are not large as a whole. Most material near the bottom of the drainage is becoming depleted and the infestation is more aggressive on the outer and upper rims of the infestation, which definitely threatens to penetrate the Grandaddy Lakes unit where increased bark beetle activity was noted on the survey.

The attacks on the Fish Creek unit were heavy and generally very blind, as also noted on the survey. Small trees were harder hit than the large ones. Attacks extended to about 3/4 of the length of the bole, with brood development medium to heavy most of the distance. There were very few pitched-out or strip killed trees. Most of the treating was done high on the ridge to the south of the west base line where brood was in the egg or small larvae stage. Larvae was larger at the lower elevations. Some trees were noted that were fading and these contained large larvae. Evidently these resulted from an earlier flight. Groups of infested trees totaling 30 - 40 trees were common at the high elevation but 4 to 6 tree groups were most prevalent on the area spotted. It is not believed that there was any difference in the relative size of the infested trees as compared with those not attacked.

General

"Safety first" received high priority on all phases of the projects this year. On the larger Iron Mine job one man devoted almost full time to accident prevention and checkup on established safety precautions. A hazard survey was made for every project and detailed instructions were issued, discussed at safety meetings and enforced in the field by the overhead. With such a high percentage of inexperienced men and boys under 18, it became necessary to devote considerable time to every new man in the field before allowing him to work at treating operations. During the entire year only one lost-time accident occurred. This one resulted during the latter part of the Fish Creek job when two new treaters violated the following instructions:

1. To leave any hung tree which seemed to present any possible danger in its removal until assistance by the strawboss was obtained.

2. In the event of attempting removal of any hung tree which seemed to be easily and safely removable, one person was to act as a lookout while the other attempted the removal.

A broken fork of a tree fell and injured one of the men as he attempted its removal without the other acting as a lookout to warn him of any falling pieces.

The above rules prevailed because about one-fourth to one-third of the trees felled by our men are hung up to a greater or lesser degree. Usually the removal requires only that the tree be chopped loose from the stump or given a twist with the canthook.

It now becomes necessary to enforce the rule that no hung tree will be touched until the strawboss is present to supervise the job. Even when infested trees are close together the men are scattered for safety's sake, so this ruling will increase treating costs somewhat. But it will simplify the safety instructions and savings in accident costs will doubtless offset this increase. Had this rule been followed, the above accident would not have occurred.

Conclusions and Recommendations

Efforts to line up men for spring work have been disappointing to date, as pointed out in our January 9 memorandum to the Regional Forester. We have a balance of $5,881.15 project funds. Unless prospects for labor improve greatly, that amount should be sufficient.

Wages will probably have to be raised over the $5.40 per day low, which we paid last fall.

It is hoped that efforts to obtain Japanese evacuees for labor can be successfully made. In this event more funds might be required, depending upon the arrangements made with regard to such labor. Work priority for areas on which some possibility of treating exists are recommended as follows:

1. Fish Creek unit adjacent to Grandaddy Lakes unit and especially the 784 trees already spotted.

2. Iron Mine unit cleanup of 868 trees.

3. Remaining area on Fish Creek unit to achieve thorough cleanup and check on isolated pockets away from main timber stand.

Reference is made to the enclosed Form F.M.-I.C.-1, Unit Summary, and to the attached map showing 1942 insect control work. Detailed unit accomplishments and costs are shown, little of which was discussed in this report.

Respectfully submitted,

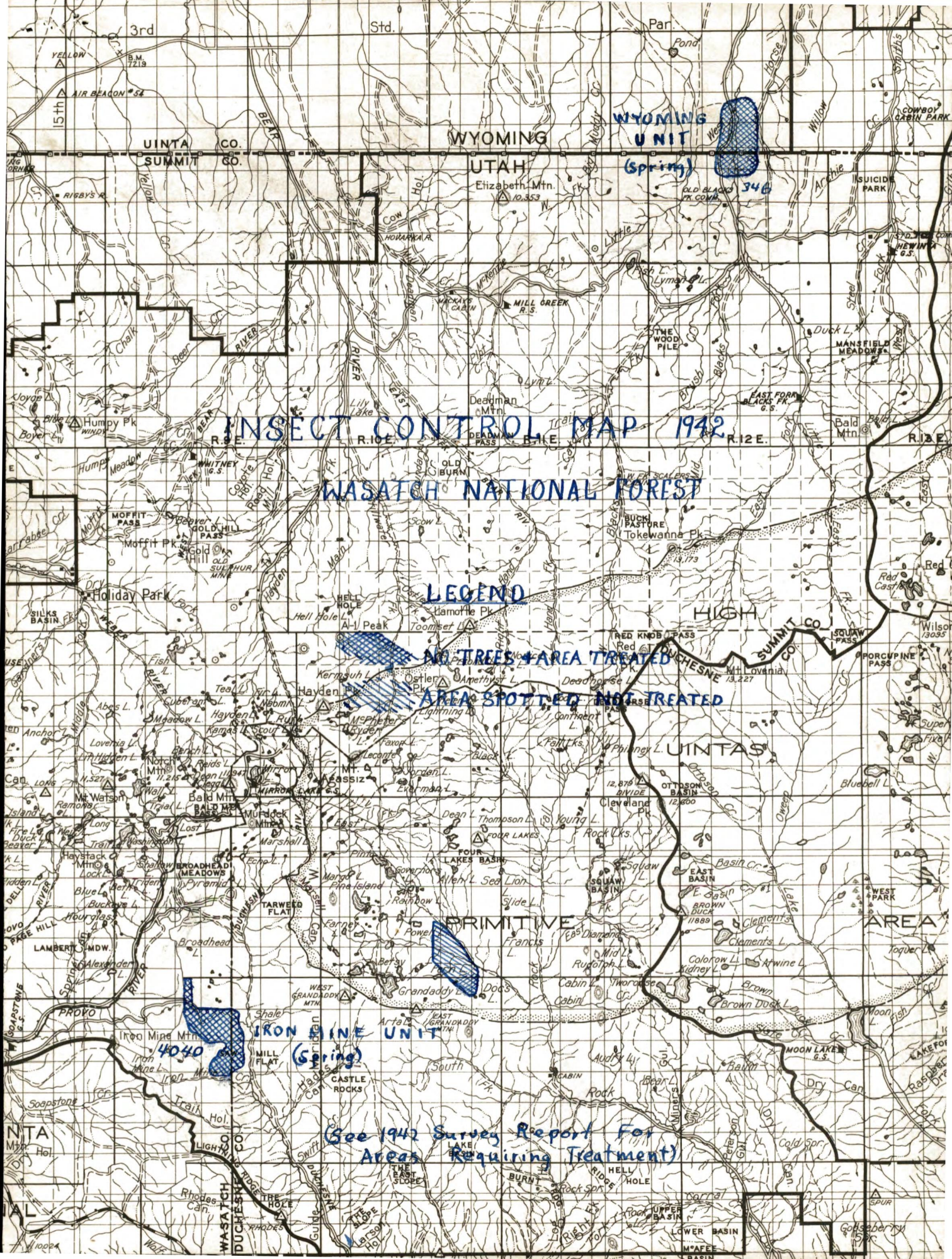
Bruce V. Groves

BRUCE V. GROVES
Assistant Forester

Enclosures

Approved 2/16/43.

James E. Fenn
Forest Supervisor


INSECT CONTROL MAP 1942
WASATCH NATIONAL FOREST
LEGEND
NO TREES IN AREA TREATED
AREA SPOTTED NOT TREATED
WYOMING UNIT (Spring)
IRON MINE UNIT (Spring)
(See 1942 Survey Report For Areas Requiring Treatment)
PRIMITIVE AREA
UINTAS
HIGH
UINTA CO.
SUMMIT CO.
WYOMING
UTAH
R.9E.
R.10E.
R.11E.
R.12E.
R.13E.
Holiday Park
Hayden Pk.
Bald Mtn.
Mt. Watson
Notch Mtn.
Murdock Mtn.
Haystack Mtn.
Iron Mine Mtn.
Elizabeth Mtn.
Deadman Mtn.
Tokewanna Pk.
Clevelane Pk.
Mt. Lovenia
Moffit Pk.
Humpy Pk.
Gold Hill
Mt. Agassiz
Dead Horse Pass
Red Knob Pass
Squaw Pass
Porcupine Pass
Moffit Pass
Gold Hill Pass
Bald Mtn. Pass
Deadman Pass
Mirror Lake G.S.
Whitney G.S.
Moon Lake G.S.
Soapstone G.S.
Mill Flat
Castle Rocks
Tarweed Flat
Broadhead Meadows
Lambert Mdw.
Four Lakes Basin
Squaw Basin
East Basin
West Park
Brown Duck
Mansfield Meadows
Suicide Park
Cowboy Cabin Park
Old Blacks Fk. Comb.
Mill Creek R.S.
Wackato Cabin
The Wood Pile
Old Burn
Old Sulphur Mine
Buck Pasture
Hell Hole
Rock Spr.
Lower Basin
McAfee Basin
Upper Basin
Provo
Weber
Duchesne
Wasatch
Ottoson Basin
Bear River
Yellow Creek
Deadman Creek
Mill Creek
Lily Lake
Lyman L.
Duck L.
Bluebell L.
Moon L.
Brown Duck L.
Rock Lks.
Four Lakes
Lightning Ridge
Rhodes Ridge
Hell Hole Ridge
Burnt Ridge
Duchesne Ridge
Guide Rock
Rock Spr. Ridge
Left Fk.
Right Fk.
Rhodes Can.
Dry Can.
Cold Spr.
Soapstone Trail
Iron Mine Trail
Hell Hole Trail
Lily Lake Trail
Deadman Trail
Mill Creek Trail
Yellow Creek Trail
Beaver Creek Trail
Coyote Hollow Trail
Rigby's R.
Air Beacon #54
B.M. 7219
Yellow
Joyce
Boyer L.
Bibe L.
Humpy Meadow
Chalk Creek
Beaver Creek
Moffit Creek
Carrabee Cr.
Dry Fork
Silks Basin Fk.
Hell Hole
Toomset
Lamotte Pk.
A-1 Peak
Kermsuh L.
Ostler Pk.
Amethyst L.
Hayden Fk.
Fish L.
Cuba L.
Tea L.
Abes L.
Meadow L.
Anchor L.
Lovenia L.
Hidden L.
Reids L.
Mirror L.
Wall L.
Ramona L.
Island L.
Fire L.
Duck L.
Beaver L.
Long L.
Lost L.
Washington L.
Haystack L.
Lock L.
Trident L.
Blue L.
Buckeye L.
Hourglass L.
Alexander L.
Broadhead L.
Marshall L.
Echo L.
Shallow L.
Pyramid L.
Pine Island L.
Margo L.
Rainbow L.
Farnes L.
Powell L.
Betsy L.
Grandaddy L.
Dean L.
Thompson L.
Young L.
Rock Lks.
Sea Lion L.
Slide L.
Squaw L.
Basin Cr.
Clements Cr.
Clements L.
Atwine L.
Colorow L.
Kidney L.
Twoforks L.
Cabin L.
Francis L.
East Diamond L.
Mid L.
Rudolph L.
Audry L.
Bear L.
Raun
Gull
Miners
Peterson
Ivory
Fish
Moon
Togwer
Lake Fk.
Basin Cr. #1
Owiep
Ottoson Cr.
Rock Cr.
Cabin Cr.
Clements Cr.
Brown Duck Lodge
Grandaddy Mtn.
West Grandaddy Mtn.
East Grandaddy Mtn.
Spring Cr.
Iron Mine
South Fk.
Rock Cr.
Soapstone Cr.
Trail Hol.
Iron Mine Cr.
Mill Flat Cr.
Cabin
Spur
Corral
Gobsebery Fk.
Lake Fork
Raspberry Dr.
Lightning Ridge
Swift Creek
Rock Spr.